

REMARKS

Claims 1 – 8, 10, 13 – 16, and 30 – 37 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Toshio et al. (Toshio, Japanese Patent Document No. 09-271909, cited by the Applicants in the IDS submitted January 14, 2003). This rejection is respectfully traversed.

Claim 1 has been amended and rewritten. More particularly, claim 1 now calls for the dimple correcting means to be defined by a plurality of ridges provided on the circumferential surface of the cooling roll for dividing dimples that are produced on a roll contact surface of the cooling roll, wherein the plurality of ridges are provided by forming a plurality grooves at an angle less than or equal to 30° relative to an edge of said cooling roll with an average width of 0.5 – 90 µm in the circumferential surface of the cooling roll, the width of the grooves preventing the molten alloy from entering the groove, and each ridge including a plurality of discreet, spaced apart regions. Such a cooling roll can be seen, for example, in Figure 19 of the application. Toshio does not teach such a cooling roll.

In contrast, as shown in Figures (a) and (c), Toshio teaches a cooling roll wherein the ridges and grooves are provided in either a v-shape or a w-shape. As Toshio does not teach a plurality of ridges that are provided by forming a plurality grooves at an angle less than or equal to 30° relative to an edge of the cooling roll when each ridge includes a plurality of discreet,

spaced apart regions, Toshio does not anticipate the claimed invention. Therefore, reconsideration and withdrawal of this rejection are respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 2, 3, and 5 to 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Toshio as applied to Claim 1, above, and further in view of Fukuno et al. (U.S. Pat. No. 5,665,177). This rejection is respectfully traversed.

As stated above, Claim 1 has been amended to call for the dimple correcting means to be defined by a plurality of ridges provided on the circumferential surface of the cooling roll for dividing dimples that are produced on a roll contact surface of the cooling roll, wherein the plurality of ridges are provided by forming a plurality grooves at an angle less than or equal to 30° relative to an edge of said cooling roll with an average width of 0.5 – 90 µm in the circumferential surface of the cooling roll, the width of the grooves preventing the molten alloy from entering the groove; and each ridge including a plurality of discreet, spaced apart regions. Claims 2, 3, and 5 – 8 are dependant on Claim 1 and should be in condition for allowance for at least the same reasons. That is, neither Toshio, Fukuno, nor any combination thereof teaches or suggests such a cooling roll. As such, the claimed cooling roll is not obvious.

Claims 1, 10, and 14 – 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bartlett et al (Bartlett, U.S. Pat. No. 4,865,117).

As stated above, Claim 1 has been amended to call for the dimple correcting means to be defined by a plurality of ridges provided on the circumferential surface of the cooling roll for dividing dimples that are produced on a roll contact surface of the cooling roll, wherein the plurality of ridges are provided by forming a plurality grooves at an angle less than or equal to

30° relative to an edge of said cooling roll with an average width of 0.5 – 90 µm in the circumferential surface of the cooling roll, the width of the grooves preventing the molten alloy from entering the groove; and each ridge including a plurality of discreet, spaced apart regions. Bartlett does not teach such a structure. In contrast, Bartlett teaches a cooling roll wherein the grooves are helical or spiral. Moreover, Bartlett contains no teaching, suggestion or motivation to have a cooling roll wherein the ridges are a plurality of discreet, spaced apart ridges. As Bartlett contains no teaching, suggestion or motivation to modify its cooling roll to that of the claimed invention, Applicants respectfully assert that claim 1 and each corresponding dependant claim are not obvious.

Claims 2, 3, and 5-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bartlett in view of Fukuno.

Claims 2, 3, and 5-7 are dependant on claim 1, addressed above. As such, Applicants respectfully assert that these claims are not obvious for at least the same reasons. That is, neither Bartlett, Fukuno, nor any combination thereof teaches, suggests, or provides motivation to utilize the claimed cooling roll and, therefore, the claimed cooling roll is not obvious.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

NEW CLAIMS

New claims 30-37 have been added. These claims are fully supported by the specification and drawings as originally filed. No new matter has been added. New claims 30-32 are dependent on claim 1 and should be in condition for allowance for at least the same reasons as enumerated above.

New claim 33 calls for a cooling roll for manufacturing a ribbon-shaped magnetic material, comprising dimple correcting means defined by a plurality of ridges provided on a circumferential surface of the cooling roll for dividing dimples that are produced on a roll contact surface of the cooling roll, wherein the plurality of ridges are provided by forming at least two spiral grooves of which a direction of each spiral groove is different so that the grooves intersect on the circumferential surface of the cooling roll, the grooves having an average width of 0.5 – 90 μm to prevent a molten alloy of the magnetic material from entering the groove. Further, new claim 33 calls for a ratio of an area of the grooves with respect to an area of the circumferential surface when they are projected on the same plane is in the range of 30 – 99.5%. This subject matter is supported, for example, by Figure 12. Neither Toshio, Fukuno, Bartlett, nor any combination thereof teaches, suggests or provides motivation to utilize such a cooling roll. As such, new claim 33 is neither anticipated nor obvious. Moreover, new claims 34-37 which are dependent on claim 33 are neither anticipated nor obvious. Accordingly, favorable consideration of these new claims is respectfully requested.

DOUBLE PATENTING

Claims 1-8, 10 and 13-16 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of co-pending application No. 09/833,806.

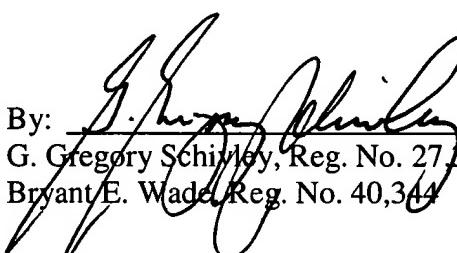
In order to obviate the double-patenting rejection, applicants elect to file a terminal disclaimer, included herewith. Therefore, reconsideration and withdrawal of this rejection is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: Aug 22, 2003
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